# IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Divisi	onal Patent Application of:	) \		
Inventor(s)	: Bernard Bihain, Lydie Bougueleret, Frances Yen-Potin	) ) )     Art Unit	:	1655
Serial No. Filed	: February 5, 2002	) Examiner )	:	J. Taylor Cleveland
Parent Applic	) )			
Serial No. : 09/485,316		) )		
Filing l	Date : February 4, 2000	) )		
Title	: LIPOPROTEIN-REGULATING MEDICAMENTS	) )		

### PRELIMINARY AMENDMENT

Assistant Commissioner for Patents Washington, D.C. 20231

Dear Sir:

Prior to the issuance of a first Office Action in the above-identified divisional patent application, please amendment the application as follows:

### In the Specification:

Please amend the first paragraph under the subtitle "Related Applications" to read as follows:

- This application is a divisional application of U.S. Serial No. 09/485,316, filed February 4, 2000, which claimed priority under 35 U.S.C. §371 to PCT/ IB98/01256, filed August 6, 1998, which claimed priority on French Patent Application No. 97 10088, filed August 6, 1997, and to Application No. 98 05032, filed April 22, 1998, the entire disclosures of which are incorporated herein by reference. - -

### In the Claims:

Please cancel the claims as filed in the parent application upon which priority for this application is claimed, and substitute the claims as shown in the attached document entitled "Claims as Pending after Preliminary Amendment".

#### In the Abstract:

Please add the following Abstract:

#### **Abstract**

-- Methods and pharmaceutical compositions useful for treating obesity-related disorders using ApM-1 and related proteins. --

The Commissioner is hereby authorized to credit any overpayment or charge any additional fees in connection with the filing of this Preliminary Amendment to our Deposit Account No. 50-1181.

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Express Mail Label No.: <u>EL821903127US</u> Date of Deposit: <u>February 5, 2002</u>

I hereby certify that this correspondence is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR 1.10, on the Date of Deposit shown above, postage prepaid and is addressed to the Commissioner of Patents and

Respectfully submitted,

Trademarks, Washington, D.C. 20231.

AARON J. SCALIA

Typed or Printed Name of Person Signing Certificate

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# Claims as Pending after Preliminary Amendment

#### WHAT IS CLAIMED IS:

- 1. A method of using an agent which influences the partitioning of dietary lipids between the liver and peripheral tissues for use as a medicament to treat a condition in which it is desirable to increase the partitioning of dietary lipids to the liver, reducing the levels of free fatty acids in obese individuals, decreasing the body weight of obese individuals, or treating an obesity related condition selected from the group consisting of obesity-related atherosclerosis, obesity-related insulin resistance, obesity-related hypertension, microangiopathic lesions resulting from obesity-related Type II diabetes, ocular lesions caused by microangiopathy in obese individuals with Type II diabetes, and renal lesions caused by microangiopathy in obese individuals with Type II diabetes.
- 2. A polypeptide comprising a consensus sequence selected from the group consisting of SEQ ID NO:1 and SEQ ID NO:2 for use as a medicament.
- 3. The agent of Claim 1, wherein said compound comprises a polypeptide selected from the group consisting of C1q, AdipoQ, ApM1, Acrp 30, cerebellin, multimerin and fragments of any of these polypeptides.
- 1 4. The agent of Claim 3, wherein said human polypeptide is selected from the group consisting of ApM1 and fragments of ApM1.
- 5. A method of reducing plasma lipoprotein levels in an animal, comprising the steps of:
  identifying an animal having a measurable plasma lipoprotein level; and
  administering to said animal a composition that includes a pharmaceutically acceptable carrier and
  an ApMl, Adipo Q or ACRP30 polypeptide comprising the amino acid sequence of SEQ ID:11, 12, or 13,
  wherein said polypeptide reduces plasma lipoprotein levels.

10.

11.

neoplastic syndrome or eating disorders.

partitioning of dietary lipids to the liver for use as a pharmaceutical.

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carrier and an ApMl, Adipo Q or ACRP30 polypeptide comprising the amino acid sequence of SEQ I 12, or 13, wherein said polypeptide reduces plasma triglycerides levels.  7. A method of identifying candidate pharmaceutical agents for reducing plasma triglycerides in an animal, comprising the steps of:  identifying a compound that comprises a consensus sequence selected from the consisting of SEQ ID NO:1 and SEQ ID NO:2;  obtaining a test animal having an initial level of plasma triglycerides;  administering said compound to the test animal;  waiting for a period of time;  measuring a post-treatment level of plasma triglycerides in a blood sample obtained the test animal; and  identifying as candidate pharmaceutical agents any compound that results in a treatment level of plasma triglycerides that is lower than said initial level.  8. The method of Claim 7, wherein the test animal is a mammal.	1	6.	A method of reducing plasma triglycerides levels in an animal, comprising the steps of:			
carrier and an ApMl, Adipo Q or ACRP30 polypeptide comprising the amino acid sequence of SEQ I 12, or 13, wherein said polypeptide reduces plasma triglycerides levels.  7. A method of identifying candidate pharmaceutical agents for reducing plasma triglycerides in an animal, comprising the steps of:  identifying a compound that comprises a consensus sequence selected from the consisting of SEQ ID NO:1 and SEQ ID NO:2;  obtaining a test animal having an initial level of plasma triglycerides;  administering said compound to the test animal;  waiting for a period of time;  measuring a post-treatment level of plasma triglycerides in a blood sample obtained the test animal; and  identifying as candidate pharmaceutical agents any compound that results in a treatment level of plasma triglycerides that is lower than said initial level.  8. The method of Claim 7, wherein the test animal is a mammal.	2		identifying an animal having a measurable plasma triglycerides level; and			
carrier and an ApMl, Adipo Q or ACRP30 polypeptide comprising the amino acid sequence of SEQ I 12, or 13, wherein said polypeptide reduces plasma triglycerides levels.  7. A method of identifying candidate pharmaceutical agents for reducing plasma triglycerides in an animal, comprising the steps of: identifying a compound that comprises a consensus sequence selected from the consisting of SEQ ID NO:1 and SEQ ID NO:2; obtaining a test animal having an initial level of plasma triglycerides; administering said compound to the test animal; waiting for a period of time; measuring a post-treatment level of plasma triglycerides in a blood sample obtained the test animal; and identifying as candidate pharmaceutical agents any compound that results in a treatment level of plasma triglycerides that is lower than said initial level.  8. The method of Claim 7, wherein the test animal is a mammal.	3		administering to said animal a composition that includes a pharmaceutically acceptable			
1 7. A method of identifying candidate pharmaceutical agents for reducing plasma triglyce levels in an animal, comprising the steps of:  identifying a compound that comprises a consensus sequence selected from the consisting of SEQ ID NO:1 and SEQ ID NO:2;  obtaining a test animal having an initial level of plasma triglycerides;  administering said compound to the test animal;  waiting for a period of time;  measuring a post-treatment level of plasma triglycerides in a blood sample obtained the test animal; and  identifying as candidate pharmaceutical agents any compound that results in a treatment level of plasma triglycerides that is lower than said initial level.  1 8. The method of Claim 7, wherein the test animal is a mammal.		carrier and an A	pMl, Adipo Q or ACRP30 polypeptide comprising the amino acid sequence of SEQ ID:11,			
levels in an animal, comprising the steps of:  identifying a compound that comprises a consensus sequence selected from the  consisting of SEQ ID NO:1 and SEQ ID NO:2;  obtaining a test animal having an initial level of plasma triglycerides;  administering said compound to the test animal;  waiting for a period of time;  measuring a post-treatment level of plasma triglycerides in a blood sample obtained  the test animal; and  identifying as candidate pharmaceutical agents any compound that results in a  treatment level of plasma triglycerides that is lower than said initial level.  The method of Claim 7, wherein the test animal is a mammal.  The method of Claim 8, further comprising the step of feeding a high-fat meal	5					
levels in an animal, comprising the steps of:  identifying a compound that comprises a consensus sequence selected from the  consisting of SEQ ID NO:1 and SEQ ID NO:2;  obtaining a test animal having an initial level of plasma triglycerides;  administering said compound to the test animal;  waiting for a period of time;  measuring a post-treatment level of plasma triglycerides in a blood sample obtained  the test animal; and  identifying as candidate pharmaceutical agents any compound that results in a  treatment level of plasma triglycerides that is lower than said initial level.  The method of Claim 7, wherein the test animal is a mammal.  The method of Claim 8, further comprising the step of feeding a high-fat meal						
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obtaining a test animal having an initial level of plasma triglycerides; administering said compound to the test animal; waiting for a period of time; measuring a post-treatment level of plasma triglycerides in a blood sample obtained the test animal; and identifying as candidate pharmaceutical agents any compound that results in a treatment level of plasma triglycerides that is lower than said initial level.  The method of Claim 7, wherein the test animal is a mammal.  The method of Claim 8, further comprising the step of feeding a high-fat meal	2	levels in an animal, comprising the steps of:				
obtaining a test animal having an initial level of plasma triglycerides; administering said compound to the test animal; waiting for a period of time; measuring a post-treatment level of plasma triglycerides in a blood sample obtained the test animal; and identifying as candidate pharmaceutical agents any compound that results in a treatment level of plasma triglycerides that is lower than said initial level.  The method of Claim 7, wherein the test animal is a mammal.  The method of Claim 8, further comprising the step of feeding a high-fat meal	3		identifying a compound that comprises a consensus sequence selected from the group			
administering said compound to the test animal; waiting for a period of time; measuring a post-treatment level of plasma triglycerides in a blood sample obtained the test animal; and identifying as candidate pharmaceutical agents any compound that results in a treatment level of plasma triglycerides that is lower than said initial level.  The method of Claim 7, wherein the test animal is a mammal.  The method of Claim 8, further comprising the step of feeding a high-fat meal	4	consisting of SEQ ID NO:1 and SEQ ID NO:2;				
waiting for a period of time; measuring a post-treatment level of plasma triglycerides in a blood sample obtained the test animal; and identifying as candidate pharmaceutical agents any compound that results in a treatment level of plasma triglycerides that is lower than said initial level.  The method of Claim 7, wherein the test animal is a mammal.  The method of Claim 8, further comprising the step of feeding a high-fat meal	5		obtaining a test animal having an initial level of plasma triglycerides;			
measuring a post-treatment level of plasma triglycerides in a blood sample obtained the test animal; and identifying as candidate pharmaceutical agents any compound that results in a treatment level of plasma triglycerides that is lower than said initial level.  The method of Claim 7, wherein the test animal is a mammal.  The method of Claim 8, further comprising the step of feeding a high-fat meal	6		administering said compound to the test animal;			
the test animal; and identifying as candidate pharmaceutical agents any compound that results in a treatment level of plasma triglycerides that is lower than said initial level.  The method of Claim 7, wherein the test animal is a mammal.  The method of Claim 8, further comprising the step of feeding a high-fat meal	7		waiting for a period of time;			
identifying as candidate pharmaceutical agents any compound that results in a treatment level of plasma triglycerides that is lower than said initial level.  8. The method of Claim 7, wherein the test animal is a mammal.  9. The method of Claim 8, further comprising the step of feeding a high-fat meal	8		measuring a post-treatment level of plasma triglycerides in a blood sample obtained from			
treatment level of plasma triglycerides that is lower than said initial level.  1 8. The method of Claim 7, wherein the test animal is a mammal.  1 9. The method of Claim 8, further comprising the step of feeding a high-fat meal	9	the test	animal; and			
1 8. The method of Claim 7, wherein the test animal is a mammal.  1 9. The method of Claim 8, further comprising the step of feeding a high-fat meal	10		identifying as candidate pharmaceutical agents any compound that results in a post-			
1 9. The method of Claim 8, further comprising the step of feeding a high-fat meal	11	treatment level	of plasma triglycerides that is lower than said initial level.			
1 9. The method of Claim 8, further comprising the step of feeding a high-fat meal						
	1	8.	The method of Claim 7, wherein the test animal is a mammal.			
			The method of Claim 8, further comprising the step of feeding a high-fat meal to the			
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A method of using an agent to decrease the activity of a compound which increases the

The method of Claim 10, for use in treating cachexia in subjects with neoplastic or para-

- 1 12. The method of Claim 10, wherein said agent decreases the activity of Adipo Q, ACRP30 or 2 ApM1.
- 1 13. The agent of Claim 10, wherein said agent is an antibody which binds a compound selected 2 from the group consisting of Adipo Q, ACRP30 or ApM1.
  - 14. A method for determining whether an obese individual is at risk of suffering from a condition selected from the group consisting of a condition associated with a lower than desirable level of partioning of dietary lipids to the liver, obesity-related atherosclerosis, obesity-related insulin resistance, obesity-related hypertension, microangiopathic lesions resulting from obesity-related Type II diabetes, ocular lesions caused by microangiopathy in obese subjects with Type II diabetes, and renal lesions caused by microangiopathy in obese subjects with Type II diabetes, comprising the step of determining whether the individual has a lower than normal level of adipoQ activity, ApM1 activity, or activity of a compound analogous thereto.

## Abstract

Methods and pharmaceutical compositions useful for treating obesity-related disorders using ApM-1 and related proteins.